

Surveyor



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SURVEYORS MEASURE AND MAP THE WORLD'S TERRAIN, establishing official land, airspace and water boundaries. They measure and analyze angles and distances between property corners and physical features on a piece of land, and write descriptions of land for deeds, leases and other legal documents.

The Workplace

Construction, mining and utility companies are among those that employ surveyors. Surveyors may also work for state and local governments, highway departments, urban planning and redevelopment agencies, and federal government agencies

such as the U.S. Geological Survey, the Bureau of Land Management, the National Geospatial Intelligence Agency and the Army Corps of Engineers.

Educational Requirements

According to the National Society of Professional Surveyors (NSPS), most states require surveyors to have a degree from either a two- or four-year college program. Completing the college program, successfully passing an exam and obtaining the necessary work experience, provides eligibility to take a national exam and earn a license. NSPS notes that the few states that don't require a degree

usually require at least 10 years spent in the field before taking the licensing exam.

Earnings

According to the U.S. Department of Labor's *Occupational Outlook Handbook*, the median annual earnings of surveying and mapping technicians in May 2006 were \$32,340, and for surveyors they were \$48,290. NSPS notes that salaries depend on the level a surveyor strives for, and a CEO of a surveying firm can earn twice the average.

Job Outlook

The Bureau of Labor Statistics notes that job opportunities for surveyors are quite favorable, and employment is expected to grow much faster than the average for all occupations through the year 2016. **I**

Explore More

To learn more about a career as a surveyor and the training and education it requires, here are some places to turn.

Accreditation Board for Engineering and Technology
www.abet.org

American Association for Geodetic Surveying
www.aagsmo.org

American Congress on Surveying and Mapping
www.acsm.net

National Council of Examiners for Engineering and Surveying
www.ncees.org

National Society of Professional Surveyors
www.nspsmo.org

Surveying Career
www.surveyingcareer.com

SCHOOL SPOTLIGHT

Greenville Technical College

SINCE IT WAS ESTABLISHED IN THE EARLY 1960s, GREENVILLE TECHNICAL COLLEGE HAS GROWN

from a small institution to a four-campus system with more than 14,000 academic students and more than 28,000 continuing education students. Greenville Tech offers more than 130 courses of study, including the only geomatics technology program in South Carolina.

Through the Greenville Tech Geomatics Technology Program, students may earn a land surveying certificate or an advanced geographic information systems (GIS) certificate, or they may opt to complete a 75-hour program of study and earn a geomatics technology associate degree. That is one thing that makes the program unique. Another is that it is among the few accredited by the Accreditation Board for Engineering and Technology (ABET) in surveying and mapping. According to Greenville's Geomatics Technology Department Head Sid Shrum, that gives it "across-the-state-line credibility." The program offers the flexibility of both day and night programs as well as some general education courses online, making it ideal for both recent high school graduates as well as for older working adults.

The Geomatics Technology Program is the recommended major for students who do not have a four-year degree but want to train as land surveying technicians. The Land Surveying Certificate in Applied Science provides students with the basic surveying courses needed to meet the requirements to become a licensed surveyor in the state of South Carolina when accompanied by a four-year degree that is acceptable to the State Land Surveying Board. According to Shrum, some of the graduates of the program have gone on to East Tennessee State Univer-



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sity to work toward a four-year degree, since East Tennessee offers in-state tuition to South Carolina residents.

The 26-credit-hour program of study includes general education courses such as college algebra and college trigonometry. In the first semester students take architectural computer graphics coursework, and in the second semester, they study map drafting fundamentals and the fundamentals of surveying. The third semester is devoted to advanced surveying, and the fourth semester focuses on evidence procedures for boundary control. In the last semester, students study GPS and Geodesy.

Job prospects for graduates of the program have been very good. "Until the summer before last, local employers would hire our students who had taken one course in surveying, and most of our students got jobs before graduation," says Shrum. The recent downturn in the housing market has caused some changes; however, Shrum adds, "Because our program offers both surveying and mapping

and GIS, our graduates can go to work in either the surveying market or in computer mapping."

There have been some notable surveyors in the history of our country—among them George Washington, Thomas Jefferson and Abraham Lincoln—but they would likely be amazed by the technology used today. And that technology makes formal education more important than ever. "Our local employers used to be able to hire people off the street and train them," explains Shrum, "but now those people need much more training because of the equipment that's used on the job."

The landscape of surveying may have changed dramatically, but education such as that offered in the Greenville Tech Geomatics Technology Program is helping to maintain the high standards and meet the ongoing needs of the profession.

For more information about the Geomatics Technology Program at Greenville Technical College, visit www.gvltec.edu.